



March 10, 2016

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: *Promoting Spectrum Access for Wireless Microphone Operations*, ET Docket No. 14-166:
Letter in Support of Petitions Requesting Reconsideration of 30 MHz Limitation on 1435-
1525 MHz Band Use

Dear Ms. Dortch:

The Madison Square Garden Company ("MSG") submits these brief comments in support of petitions requesting the Federal Communications Commission ("Commission") to reconsider its decision to impose a 30 MHz limitation on wireless microphone use of the 1435-1525 MHz band ("1.4 GHz Band").¹ MSG supports the Commission's decision to identify much-needed spectrum in the 1.4 GHz band for secondary wireless microphone operations particularly to accommodate "professional use for certain large events (e.g., major sports or theater productions)." However, MSG agrees with certain petitioners that the Commission should eliminate the 30 MHz limit and permit licensed professional users to utilize the full 90 MHz band in order to provide the flexibility and bandwidth necessary to support the large number of microphones typically needed at larger events. As such, MSG supports the petitions filed by microphone manufacturers Shure Incorporated, Sennheiser Electric Corporation, Lectrosonics, Inc. and Audio-Technica U.S., Inc. (together, the "Petitioners"), urging the Commission to eliminate the 30 MHz limitation in the 1.4 GHz Band, allowing users access to the full 90 MHz of spectrum in the band, subject to Commission rules and coordination with the Aerospace and Flight Test Radio Coordinating Council, Inc. ("AFTRCC").²

By way of background, MSG, a Part 74 licensee, is a world leader in live sports and entertainment with a portfolio of legendary sports teams, exclusive entertainment productions and celebrated venues. MSG Sports owns and operates some of the most widely recognized sports franchises: the New York Knicks (NBA), the New York Rangers (NHL) and the New York Liberty (WNBA), along with two development league teams - the Westchester Knicks (NBADL) and the Hartford Wolf Pack

¹ *Promoting Spectrum Access for Wireless Microphone Operations*, Report and Order, 30 FCC Rcd 8739 (2015) ("*Wireless Microphone R&O*").

² See *Shure Petition* at 7-10; Petition for Reconsideration of Sennheiser Electronic Corporation, GN Docket No. 14-166, at 3-6 (filed Dec. 17, 2015) ("*Sennheiser Petition*"); Petition for Reconsideration of Lectrosonics, Inc., GN Docket No. 14-166, at 4-5 (filed Dec. 17, 2015) ("*Lectrosonics Petition*"); Petition for Reconsideration of Audio-Technica U.S., Inc., GN Docket No. 14-166, at 5-6 (filed Dec. 17, 2015) ("*A-T Petition*").

(AHL). MSG Sports also presents a broad array of world-class sporting events, including: professional boxing, college basketball, tennis, bull riding and e-gaming events. MSG Entertainment features exclusive, original productions that include the *Radio City Christmas Spectacular* and the *New York Spectacular Starring the Radio City Rockettes*, both starring the legendary Rockettes, and presents or hosts a wide variety of live entertainment offerings, including concerts, family shows and special events, in the company's diverse collection of iconic venues, including New York's Madison Square Garden, The Theater at Madison Square Garden, Radio City Music Hall ("RCMH") and Beacon Theatre; the Forum in Inglewood, California and the Chicago Theatre.

To illustrate the substantial demand for wireless microphone spectrum in today's entertainment productions, RCMH currently employs over 500 wireless microphones in the *Radio City Christmas Spectacular* and the *New York Spectacular Starring the Radio City Rockettes* performances, which provide the audience with a visceral and immersive authentic sounding experience. RCMH currently uses the full 490-698 MHz band to operate up to 500 wireless microphones, including monitoring and related communications. The 490-600 MHz band is fully utilized for performer microphones, monitoring, and stage/life safety communications and the 600-698 MHz band is fully utilized, requiring over 80 MHz, for operation of 300 of the 500 microphones and wireless devices alone. Given the impending loss of up to 120 megahertz of UHF spectrum that will be repurposed for exclusive cellular use,³ RCMH must consider alternative spectrum options to continue its Rockettes productions and other productions in their existing capacity and the 1.4 GHz Band warrants serious consideration, absent the 30 MHz restriction.

In the 2015 *Wireless Microphone R&O*, the Commission restricted "all microphones operating in a particular area to access no more than 30 megahertz" in the 1.4 GHz band.⁴ This limit was not part of the Commission's original proposal and the public was not asked for comment on the need or wisdom of such a limit. Based on our extensive "on the ground" experience in producing large events, it is our view that this restriction places an unreasonable burden on the very productions that the Commission is trying to accommodate in the 1.4 GHz band. MSG uses state-of-the-art equipment and consistently supports development of high-quality professional wireless microphone equipment with increasingly higher microphone channel counts. The 30 MHz limit is not necessary to encourage greater wireless microphone spectrum efficiencies -- professional production demand already exists.

Although the order suggests that the Commission would entertain requests for special temporary authority on a case-by-case basis to accommodate larger scale events requiring more than 30 MHz in this band,⁵ that process is burdensome and costly wasting not only the financial and personnel resources of event production teams but also of the Commission staff and AFTRCC each of which will be required to respond individually to STA proposals to exceed the 30 MHz limit. Petitioners

³ See *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6567 (2014).

⁴ *Wireless Microphone R&O* at ¶ 118.

⁵ See *id.*

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argue, and MSG agrees, that the 30 MHz limitation "is in direct conflict with the stated use of this spectrum for situations that require large numbers (100+) of wireless microphones."⁶

Moreover, AFTRCC does not oppose the Wireless Microphone Manufacturers on this issue. AFTRCC states that the limitation "offers no particular advantage" to AFTRCC and confirms that it would treat all requests for coordination the same, whether for 30 MHz or 90 MHz of 1.4 GHz spectrum.⁷ AFTRCC offers that it would not matter if the entire 90 MHz band is requested as long as the equipment is certified to meet authentication and geolocation verification requirements and the wireless microphone operations present no interference concerns to planned AMT operations or other prior coordinated uses.⁸

The 30 MHz limitation adds unnecessary complexity, administrative procedures, and cost to spectrum access, and is not needed to prevent interference to other users. In light of the undisputable dearth of spectrum available for wireless microphone users, the demonstrated need for greater than 30 MHz swaths of spectrum for large-scale productions and the unnecessary complexities associated with the supplemental STA process, MSG urges the Commission to eliminate the 30 MHz limitation and allow licensed microphone users access to the full 90 MHz of spectrum in the 1.4 GHz Band, subject to the Commission's technical rules and coordination requirements.

Respectfully submitted,



Lawrence J. Burian

⁶ *A-T Petition* at 5-6. See also *Lectrosonics Petition* at 4 (noting that the limitation is "unnecessary and conflicts" with the Commission's goal of supporting large-scale wireless microphone deployments); *Sennheiser Petition* at 3 (arguing that the limitation "undermines the purpose of making the band available to wireless microphone use"); *Shure Petition* at 7-8 (similarly maintaining that the limitation "undermines the Commission's stated policy goals of accommodating the long-term needs of wireless microphone users").

⁷ Comments of Aerospace and Flight Test Radio Coordinating Council, Inc., GN Docket 14-166, at 3 (filed Feb. 29, 2016).

⁸ *Id.*